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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/988,401 | 11/19/2001 | Hejiro Ojima | 019970-005 | 8269 |

7590 10/28/2003
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EXAMINER

MEDLEY, MARGARET B

ART UNIT PAPER NUMBER

1714

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/988,401 | Applicant(s) OJIMA ET AL. | |
| | Examiner Margaret B. Medley | Art Unit 1714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 July 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 9-38 and 40-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 9-38 and 40-49 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

The amendment filed on July 11, 2003 had been entered of record. Claims 1-8 were previously cancelled and claims 39 and 50-57 are presently cancelled.

The pending claims of record are claims 9-38 and 40-49.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 9-38 and 40-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The "multi-ligand metal chelate compound comprising" of claim 9 (and its dependent claims) and the "compound comprising" of claims 24 (and its dependent claims) are indefinite and confusing.

The open-ended "comprising" term language opens the claims to components that are not recited. It is unclear as to what else is to be a part of the compound. A compound should be closed ended because it is very specific. Clarification to the record as to the scope of the claims is requested.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Palazzotto et al (Palazzotto) 5,385,954

Palazzotto teaches and discloses multi-ligand metal chelate compound comprising metal species of group IVB, VB, VIB, VIIB and VIIIB, abstract, with sulfur containing ligands e.g. dithiocarbamates, column 6, lines 13-20 and 42, and phosphorous ligand, column 6, lines 32-35, and carboxylic acids, column 6, lines 38-39, and the organometallic complex of the formula $[(L^{1a})(L^{2a})(L^{3a})M^{a1}]_g [(L^{1b})(L^{2b})(L^{3b})M^{b1}]_h [(L^{1c})(L^{2c})(L^{3c})M^{c1}]_i [(L^{2d})(L^{3d})M^{d1}]_k (L^4)(L^5)(L^6)^{+e} X_f$, column 2, lines 50 to column 4,

lines 48 that anticipate or on the alternative render obvious the instant claims 9 and 24 multi-ligand metal chelates.

Claims 9-38 and 40-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palazzotto et al (Palazzotto) 5,385,954 combined with Tonen Corp JP-7,118,283 and Nassry et al 4,151,099 in view of Freier 3,249,538, Kipp et al (Kipp 4,654,155, (Yasauso et al JP-4,239,096 and Schey's Tribology in Metal Working "Friction Lubrication and Wear" 4.7.8 Phosphate Coating.

Palazzotto teachings for multi-ligand metal chelate compounds are set forth supra and are not repeated.

Tonen Corp '283 teaches production of a poly -ligand metal chelate compound for exhibiting friction-reducing effect when used in a lubricant composition, e.g., an oil, note the English Abstract. Patentee lacks teaching to an aqueous carrier for said metal compound.

Nassry et al tech and disclose a water-based composition for metalworking comprising Mo or Sb compounds, note column 4, line 52 to column 5, lines 1-7, column 6, lines 35-end and examples 1-16 and claims 1, 5,11 and 18.

Tonen Corp and Nassry lack teachings to pre-treating a metal surface with phosphates and organic acid compounds, the in-situ reaction of phosphate with iron and zinc ions producing crystalline coatings.

It is the examiners position that the treating of a metal surface with phosphate and organic acid compounds and the in-situ reaction of phosphate with iron and zinc

reaction of phosphate with iron and zinc ions producing crystalline coatings would be obvious in view of the teachings of Freier, Kipp, Yasuro and Schey.

Freier discloses and teaches method of applying a lubricate to a surface and lubricant compositions comprising water, Mo disulfide, NaOH, NaP, hydrazine hydrate, VI agents, etc, note column 1, lines 40-66, Examples 1 and 2, column 2, lines 53 to column 3, lines 1-19 and claims 1-12.

Yasuro '096 teaches a method for lubricating a metal surface with a lubricant that has been pretreated with an aqueous solution of acid solution, e.g., phosphoric acid, and dried to form a coating film, note the English abstract. Patentee lacks specific teachings of Schey's teachings. Schey teaches phosphate coating for metal surfaces, the in-situ reaction of phosphate with iron and zinc ions producing crystalline coating for better adhesion of lubricant coating, note pages 175-178.

Kipp et al teach a conventional aqueous metal working lubricant composition comprising water, phosphate and other conventional lubricant additives, note in the entirety, especially column 6, lines 54 - to column 7, lines 1-9 and Table I.

It is the examiner's position that it would have been obvious to one of ordinary skill in the art with the combined teachings of Palazzotto, Tonen and Nassry to produce an aqueous metal lubricant composition with metal compounds and to use the said aqueous composition with metal compounds. And to further use the said aqueous composition to coat or lubricant a metal surface because combining two or more materials disclosed by the prior art for the same purpose to form a third material that is

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to be used for the same purpose has been held to be a prima facie case of obviousness, See in re Kerkhoven 205 USPQ 1069.

It would have been obvious to the artisan working in the metal art to add or use the methods and the pretreatment metal compounds of the secondary references as the methods and pretreatment compounds of the primary references because the methods and compounds are the same and are reasonable expected to exhibit it lubrication and lubricity properties in metal or metal or metal-working processes. It is the examiner's position that Freier's pretreatment compounds will inherently have hydroxide ions attached to its metals by an in-situ reaction. The claims are rendered obvious in the absence of claims to structure or formula to distinguish over the teachings of the relied on prior art of record.

Applicant's arguments with respect to claims 9-38 and 40-49 are have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is 703-308-2518. The examiner can normally be reached on Monday-Friday from 7:30 am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

M. Medley/lap
October 20, 2003

Margaret B. Medley
MARGARET MEDLEY
PRIMARY EXAMINER